

What is claimed is:

1. A hydrogen supply device comprising:
  - a hydrogen-using apparatus which uses hydrogen;
  - a hydrogen occlusion tank, which a hydrogen occluding alloy is accommodated in;
  - a hydrogen supply unit which supplies hydrogen, released from said hydrogen occlusion tank, to said hydrogen-using apparatus;
  - a mixing unit which mixes air warmed by heat generated when said hydrogen-using apparatus consumes hydrogen, with air having a different temperature from said warmed air; and
  - a heating unit which heats said hydrogen occlusion tank by using said mixed air.
2. The hydrogen supply device as described in Claim 1, further comprising a flow control unit which controls the flow amount of said warmed air and said air having a different temperature, and the flow control unit is controlled in accordance with a temperature required by said hydrogen occluding alloy.
3. The hydrogen supply device as described in Claim 1, further comprising a hydrogen storage tank which stores hydrogen, and hydrogen in the hydrogen storage tank is supplied to said hydrogen-using apparatus when the temperature of said warmed air is insufficient to release hydrogen from said hydrogen occlusion tank.
4. The hydrogen supply device as described in Claim 3, wherein hydrogen in said hydrogen occlusion tank is supplied to said hydrogen storage tank when said hydrogen-using apparatus stops operating.
5. A hydrogen supply device comprising:
  - a fuel cell which generates electricity and heat by the chemical reaction of hydrogen and atmospheric oxygen;
  - a hydrogen occlusion tank, which a hydrogen occluding alloy is accommodated in;

a hydrogen supply unit which supplies hydrogen, released from said hydrogen occlusion tank, to said fuel cell;

a mixing unit which mixes air warmed by heat generated when said fuel cell generating electrical energy, with air having a different temperature from said warmed air; and

a heating unit which heats said hydrogen occlusion tank by using said mixed air.

6. The hydrogen supply device as described in Claim 5, wherein said warmed air comprises exhaust air containing water, exhausted from said fuel cell.

7. The hydrogen supply device as described in Claim 5, wherein compressed air which is supplied to said fuel cell as a reaction gas is used as said air having a different temperature, and the compressed air having a temperature higher than that of said warmed air is supplied to said hydrogen occlusion tank when the heat from said heating unit is insufficient to release hydrogen from said hydrogen occlusion tank.

8. The hydrogen supply device as described in Claim 5, wherein a coolant which cools the heat generated by said fuel cell is provided, and said warmed air is air fed by a fan which cools the coolant.